DOCUMENT RESUME

ED 202 956 UD 021 452

TITLE	Thomas Jefferson High School. Effective Transition of the Bilingual/Bicultural Student. Title VII Final Evaluation Report, 1979-1980.
INSTITUTION	New York City Board of Education, Brooklyn, N.Y. Office of Educational Evaluation.
SPONS AGENCY	Office of Bilingual Education and Minority Languages Affairs (ED), Washington, D.C.
BUREAU NO	5001-42-07639
PUB DATE	80
GRANT	G007804522
NOTE	58p.; For related documents, see ED 191 978, ED 199 368-375, ED 200 693-705, UD 021 377-378, UD 021 380-381, UD 021 383-386, UD 021 436, and UD 021 446-452.
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Achievement Gains; *Bilingual Education; Community Involvement; Curriculum Development; *English (Second Language); Instructional Materials; Parent Participation; *Program Effectiveness; Program Evaluation; Secondary Education; *Second Language Instruction; *Spanish; Staff Development
IDENTIFIERS	Elementary Secondary Education Act Title VII; *Limited English Speaking; New York (Brooklyn)

ABSTRACT

This is an evaluation of a Title VII bilingual program that was conducted at Thomas Jefferson High School in Brooklyn, New York, in 1979-1980 to serve Spanish speaking students. The goal of the program was to facilitate their transition to mainstream classes. The evaluation provides a demographic context, information on student characteristics, and a program description. Instructional components discussed include: (1) programming and mainstreaming; (2) funding; (3) bilingual classes; and (4) English as a second language classes. Non-instructional components covered include: (1) curriculum and materials development; (2) supportive services; (3) staff development; and (4) parental and community involvement. Tables show students' performance on the Criterion Referenced English Syntax Test and achievement in mathematics, social studies, science, native language arts, native language mathematics, and Spanish language. Attendance rates are given and conclusions and recommendations are offered. (APM)

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FINAL EVALUATION REPORT

ESEA Title VII

Grant Number: G007804522

Project Number: 5001-42-07639

THOMAS JEFFERSON HIGH SCHOOL

EFFECTIVE TRANSITION OF THE BILINGUAL/ BICULTURAL STUDENT

1979-1980

Principal: Mr. Mark Weyne

Director: Mr. Norman Pearlman

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NEW YORK CITY PUBLIC SCHOOLS
OFFICE OF EDUCATIONAL EVALUATION
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EFFECTIVE TRANSITION OF THE BILINGUAL AND BICULTURAL STUDENT TO SENIOR HIGH SCHOOL(ETBBS)

THOMAS JEFFERSON HIGH SCHOOL

Location: 400 Pennsylvania Avenue
Brooklyn, New York 11207

Year of Operation: 1979-1980, second year of funding

Target Language: Spanish

Number of Students: 225

Principal: Mark Weyne

Project Director: Norman Pearlman

Introduction

Project ETBBS was funded for fiscal year 1979-1980 as a continuation grant under the provision of the Elementary and Secondary Education Act (ESEA) - Title VII. This funding period completes the second year of a four year cycle awarded in 1978. ETBBS is a bilingual secondary education program operating within an organizational unit of Thomas Jefferson High School, Brooklyn, New York.

The project offered bilingual instructional and supportive services to a fluctuating student population, generally averaging 225 at any point during the year, of Hispanic students of limited-English proficiency (LEP) in grades 9 - 12. Program teachers were trained

through college coursework, in-service workshops offered by school staff and outside consultants. Program parents and community members were involved with a limited degree of success in the student's education. Additionally, the program has translated and adapted New York City Math and Science curricula and cross-referenced curricula to texts in English and Spanish.

Program Goals and Objectives

The ultimate goal of the program is to improve the academic performance of 225 Hispanic LEP students in English in order to facilitate their transition to the mainstream. Its instrumental goal is to develop a practical comprehensive course of study for bilingual and potential bilingual students to be supplemented by an effective instructional and support service staff. This staff is trained in the areas of specialization required by the target population. Further, the program aims at the involvement of parents in the educational process of their children and the development of knowledge of and sensitivity to cultural differences.

Specifically, the program evaluation considers the following objectives for the 1979-80 project period:

1. To increase reading achievement in Spanish as indicated by a statistically significant (α = .05) difference between pre-post test scores on the CIA Prueba de Lectura.

2. To increase reading achievement in English as indicated by students gaining an average of 1.0 objectives per month on the Criterion Referenced English Syntax Test (CREST).

3. To increase the proportion of students performing successfully on examinations in the content areas as indicated by 65% of the students passing teacher-made final examinations and the Shaw-Hiehle Mathematics Examination.

4. To achieve a 65% proportion of students performing successfully on teacher-made examinations in the Native Language Arts.

5. To improve the attendance rate of program students as indicated by a statistically significant (α = .50) difference between proportions of school (non-program) and program attendance.

6. To achieve at least a 60% positive response by students on the Piers-Harris Self-Concept Scale.

Site

Project ETTBS is housed in the Thomas Jefferson High School building at 400 Pennsylvania Avenue in the East New York area of Brooklyn. The school vicinity is residential and of low income. Housing facilities are generally in poor condition, and many buildings are burned out or abandoned. The school is accessible by public transportation and the area is moderately active during the day time.

The ethnic distribution of the community is approximately 75% Black and 25% Hispanic, mostly Puerto Rican and Dominican. Both the Black and Hispanic groups are generally of the lower socio-economic stratum.

The community is characterized by problems typically found in poor areas in large cities, such as high mobility rates, poverty, drug addiction, little parental involvement in children's education, abandoned buildings, high rates of illiteracy and unemployment. Families of new arrivals are initially the least affected by some of these problems. However, as they spend time in the community they seem to acquire more of the social problems of the urban ghetto.

Spanish is spoken in the homes of Hispanics and in social situations. New York born Puerto Ricans, however, make frequent use of English, periodically switching to Spanish. Black English is used by English speaking students in school and on school grounds.

Student Characteristics

Eligibility for student participation in the program is primarily determined by their scores on the NYC Language Assessment Battery (LAB). Other criteria used for entry are the results of interviews with the Project Director and previous academic records. The program constantly enrolls new students throughout the year. These students are either new arrivals, returnees who were previously in the program and had returned to their country of origin, or transfers from other schools.

The ethnic composition of the students in the program is approximately 50% Puerto Rican, either born in the United States or who came to New York at a very early age, and 50% new arrivals to the U.S.

(mostly Puerto Rican and Dominican, some Central and South American).

It is important to note that the majority of the newly arrived students are academically below level in their native language. The project director estimates a range from four years below to on-grade level. Hispanic students either born or raised in New York City are approximately six levels below their grade reading in English. However, some manifest oral fluency in English, but according to their LAB scores they must be categorized as LEP. This latter group uses English frequently for in-school and out-of-school functions. Language use patterns are quite the contrary with the recently immigrated students.

It may be safely stated that the target students vary tremendously in their needs and ability. They range from very limited proficiency (in all language skills) in both languages and in academic areas to some degree of proficiency in both languages and in academic areas. Teachers have pointed to the urgent need for individual student diagnosis of not only academic/language needs but also of psychological needs. They stated that some students have emotional and other psychological impediments. However, no special placement had been arranged.

Program Description

Philosophy

The philosophy of the program, both explicitly stated and in effect operating, is to expedite the acquisition of English language skills through native and second language instruction. In addition to

the instructional provisions, the rapid transition to English (be it mainstream or some alternative program) is believed possible if complimented by guidance services.

Interviews with program and school administrators and with program teachers indicate that while the administration shares and supports the above philosophy, the teachers consider it problematic in practice. Students who demonstrate substantial progress in English are removed from the bilingual program. Because of the limited scope of the program in terms of being strictly transitional, the program administration is of the opinion that there are more opportunities for these students in programs other than the bilingual program. An example cited was the College Discovery Program which works directly with colleges where participating students are placed after graduation. The bilingual program does not provide similar services.

The problematic aspect of this practice, according to teachers interviewed, is the effect that this policy has on the remaining students and the program. The remaining students tend to be "slower" learners and non-English speakers who may well benefit from interaction with their more advanced and linguistically competent peers. Other negative effects of this policy may be that the program may be viewed as not successful since it is continuously purged of the more able students, and that this perspective may result in the program's diminished status in the school and in the eyes of the participating students.

Program Organization and Personnel

The program has a two year history. It was funded in September of 1978 for a four year cycle. It was originally designed by a teacher in the Modern Language Department who could not stay at Thomas Jefferson High School to be the Program Director, as originally intended. Teachers in the department cooperated in order to provide time for one person to write the original proposal.

Presently the program functions under the supervision of the Assistant Principal/Department Chairman of the Modern Language Department who is bilingual English/Spanish and a teacher in the program. The Program Director has full responsibility for all administration including instructional, training and fiscal matters. Informal structure allows for direct communication with the school principal whenever necessary. The Director's functions also include overseeing the work of all program staff, evaluation and placement of new students, dissemination of information, and communications with parents. He holds two Master's Degrees, one in Foreign Language and the other in Accounting, and is certified in teaching ESL, French, and junior high school mathematics. He has experience teaching bilingual students and coordinating an ESL program and communicates with students and parents in Spanish.

A bilingual guidance counselor assists in programming students, advises students, meets with teachers, students and parents, and deals with any referrals to any school or alternative program. The Guidance Counselor holds a Master's Degree in Counseling and is certified as a Bilingual Guidance Counselor by the NYC Board of Education.

A resource teacher is responsible the the translation and adaptation of New York City Curricula. He assists in research and review of classroom materials and supervises a resource room where students receive individualized instruction on a tutorial basis. The resource teacher holds a Master's Degree in Education and is certified by the New York City Board of Education to teach Spanish and Bilingual Math.

Four paraprofessionals assist subject area teachers in classroom routines and tutoring students. They all hold high school diplomas and one has teaching experience in her country of origin. All are bilingual.

A bilingual secretary is responsible for clerical work and typing, and assists in office routines in general. She holds a high school diploma and has completed 45 credits toward a Bachelor's Degree. She too is bilingual.

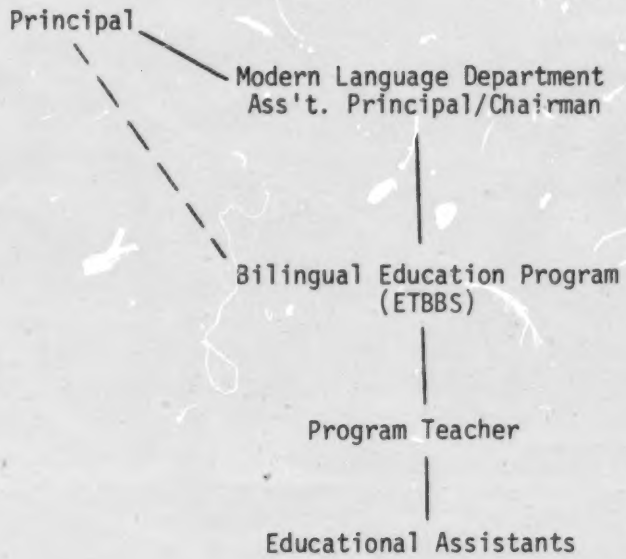
The formal organizational arrangements and the existing informal channels of communication faciliate, in general, all administrative, supervisory, instructional and supportive service functions of the program. It is the program's organizational arrangement that teachers identified as one of the program's most commendable features.

The following presents the organization of the Bilingual Program personnel:

TABLE I

Thomas Jefferson High School

Project: ETBBS



Instructional Component

Programming and Mainstreaming

Instructional programs are designed according to individual need. In addition to evaluating the LAB scores, the director and the guidance counselor hold personal interviews with the students. The students' academic records are reviewed (when available) and teachers' recommendations are requested. The resulting programs are as diversified as the students' needs, performances and interests. Some programs may include practical arts, for example, while others may be completely academic in nature.

The program's instructional offerings are designed to meet the students' linguistic and academic needs as well as to incorporate the study of their cultural background. Culture is predominately studied through coursework, viewing theatrical plays, etc. The experiential component of culture, observable through the interaction and behavior of teachers with students is less noticeable. Students are exposed to a limited number of professionals in the school setting who are members of their cultural group.

Program classes taught in Spanish only are Latin American Studies, World History, American History, General Science, Biology, Mathematics, Pre-Algebra and Algebra. At least one class is offered for each subject area and one required course, General Science, is offered in three sections. Each class meets five times per week. Student enrollment varies according to need for the particular course.

The following table shows the number of classes taught in Spanish by subject area, number of students enrolled in each class, the propor-

tion of staff time used for instruction and the curriculum presently in use.

TABLE II

Bilingual Program Classes

Subject	Number of Classes	Number of Students Enrolled Per Class	Proportion of Staff Time Teacher	Para.	Curriculum In Use
Latin American Studies	1	17	.2	.2	New York City Curriculum
World History	2	30	.4	.4	and Teacher
General Science	3	32	.6	.6	Developed
Biology	1	25	.2	.2	_____
Math I	1	33	.2	.2	New York City
Math II	1	34	.2	.2	Curriculum
Pre-Algebra I	1	28	.2	.2	with Translation
Algebra I	2	14	.4	.4	and Cross
Algebra II	1	21	.2	.2	References to Text

English as a Second Language classes are offered according to three levels of language proficiency. Ten classes five times per week were offered in total: 4 classes for first level, 4 classes for second level, and two classes for third level. Given the diversity of linguistic backgrounds and places of origin, students in each level were separated according to their language dominance and language usage. New York-born

Hispanics who use English more frequently were instructed separately from students from outside the continental United States. All students are placed in ESL classes on the basis of their scores on the LAB test.

The following table shows the number of ESL classes by level and student enrollment in each class.

TABLE III

ESL Classes: Levels, Enrollment, and Students' Linguistic Classification

Classes by Level	Number of Students Enrolled	Language Dominance Classification
First : ESL 2	33	LEP-English
First : ESL 2	31	LEP-English
First : ESL 2	31	LEP-Spanish
First : ESL 2	33	LEP-Spanish
Second : ESL 4	21	LEP-English
Second : ESL 4	18	LEP-English
Second : ESL 4	34	LEP-Spanish
Second : ESL 4	38	LEP-Spanish
Third : ESL 6	9	LEP-English
Third : ESL 6	12	LEP-Spanish

Program students participate in "mainstream" classes taught in English, offered five times per week. The Criteria used for admission to these courses are level of achievement, student ability, and teacher recommendation. The following table indicates courses by subject areas and number of students enrolled in each class.

TABLE IV

Mainstream Classes in which Bilingual Program Students Participate

Subject	Students Enrolled
Accounting	1
Art-Ceramics	1
Art-Major	2
Art-Photograph	7
Art-Required	43
Consumer Ed.	1
English 12	14
English 4	3
English 58	8
English 68	8
English 78	3
French 2	7
Home Eco.	3
Math-Pre-Alg I	2
Math-Geometry A	5
Math Skills	8
Music Jr. Band	1
Chorus	1
Required	59
Practical Arts - Electrical Shop	3
Woodshop 1	18
Woodshop 2	1
Secretarial Studies - Office Machine	3
Record Keeping	2
Clerical Practice	1
Typing 1	12
Typing 2	3
Typing 6	1
Science - Biology 2	3
- General 2	5
- Metallurgy	1
Social Studies - American History 1	16
- American History 2	1
- Economics	4
- World History	2
Speech - Drama	1
- Required	10

Required courses, such as Physical Education, Art and Music, serve the double purpose of initiating the transition to English as well as to integrate Bilingual Program students with non-program students.

The number of hours taught in Spanish decreases as the students progress through the grades. Mainstreaming takes place after completion of certain courses and upon recommendation of teachers. Most seniors are mainstreamed. Approximately 10% of the students who complete their ESL requirement opt to continue taking at least one course in their native language.

Students vary in attitude toward mainstreaming. New York born or raised students look upon it favorably because they are resistant to the bilingual program. Recently arrived immigrants seem to be amenable only after two or three years if they feel confident in their English speaking proficiency. Parents may opt their children out of the program at any time and their approval must be secured prior to mainsteaming a student.

The program does not presently follow-up on students who have been mainstreamed. However, it is reported that after students are mainstreamed they return to the program for advice and tutorial assistance as well as to use bilingual resources.

Of the 275 students initially enrolled in the program, approximately 85 (31%) left the program for varying reasons: 16 (6%) were mainstreamed, 4 (1%) were graduated; 9 (3%) were discharged to an alternative program; 10 (4%) have transferred to another school (moved); 19 (7%) were removed from the program by parental option; and 31 (11%) either returned to their native country, married, or were discharged.

Funding for Instuctional & Non-Instructional Components

The program combines two major sources of funding for instructional services: Tax levy and Title I of ESEA. Title I provides for 2 teachers and 2 paraprofessionals for ESL, and 1 teacher and 1 paraprofessional for

native language instruction. Other than these two areas, all other instructional personnel serving bilingual program students are supported by tax levy funds. Title VII constitutes the major source of funding for the non-instructional components: Curriculum Development, Staff Development, Supportive Services, Parental Involvement, Administration, and Secretarial Services. Tax levy and Title I funds compliment the Title VII funds in supportive services, and staff development.

TABLE V

Instructional Component: Funding and Personnel

Content Areas	Funding Sources	Number of Teachers	Number of Paras
ESL	Title I	2	2
	Tax Levy	2	
Native Language Arts	Title I	1	1
Math	Title VII		1.3
	Tax Levy	1	
Science	Title VII		1.3
	Tax Levy	1	
Social Studies	Title VII		1.3
	Tax Levy	1	

TABLE VI

Non-Instructional Component: Funding and Personnel

	Funding Sourec(s)	Personnel Providing Services
Curriculum Development	Title VII	1 resource teacher for math and science
Supportive Services	Title VII	1 guidance counselor
	Tax Levy	1 guidance counselor for students who leave
	Title I	1 guidance counselor plus family assistant
Staff Development	Title VII	outside consultant
	Tax Levy	Language Department Chairman
Parental and Community Involvement	Title VII	Project Director
Other:		
Administration and	Title VII	secretray
Secretraial Services	Title VII	Project Director for program coordination

Non-Instructional Component

Curriculum and Materials Development

The program has translated New York City curriculum for 9th grade math, biology and general science. In addition it has translated and cross-referenced a year program of math skills to texts in Spanish and English. Model lesson plans for algebra have also been developed. Maps, reading kits, spirit boosters, puzzles and audiovisual materials have been obtained and used in the bilingual classrooms. The program also has a resource room with curriculum guides available to teachers, and 200 books and an encyclopedia available to students. The program secures materials made

available through other Title VII projects, such as the Board of Education's Bilingual Resource Center.

The social studies curriculum includes the study of the history and the culture of Latin America. Texts in Spanish are availabe for the areas of science and mathematics.

The area of English as a Second Language uses a variety of commercially made materials but presently lacks an adequate uniform curricular guide to be followed according to students' level of proficiency in English. Additionally, it was noted by teachers that materials for Spanish language arts were very scarce.

Supportive Services

The majority of participating students receive supportive services from program staff and school personnel.

Guidance. The program's Bilingual Guidance Counselor served approximately 150 students in matters related to programming or personal problems. This constitutes 67% of the total student population. He worked with about 25 other students on special matters, such as "talent searches". Students were called for counseling when family problems were known to exist or when attendance decreased. Discussions and individual counseling sessions took place "off the record" whenever the need arose. In an interview with the counselor he indicated that sometimes the urgency of matters necessitated appealing to sources outside of those provided by the school or public services in order to solve a problem immediately.

Interviews with the students and teachers indicate that there are varied opinions regarding statisfaction with the program's guidance services.

Most students interviewed received services 2 to 3 times a year, did not feel they received the type of counseling they needed, and felt that the counselor was not sufficiently bilingual. The teachers and administration felt that program counseling services require a counselor who is highly proficient in the students' native language, and that the program counselor was not. This factor may account for low voluntary pupil participation in counseling. Also lacking in the provision of guidance services is a systematic needs assessment procedure.

Home Visits. The objective of home visits was to increase student attendance. Three students' homes were visited by a paraprofessional assistant as a result of teacher or guidance counselor referral.

It apperars that this type of service needs great improvement. At present, although a great needs exists, the program does not have one person assigned exclusively to visit homes and to work with the families. Home visits need to be increased in number in order to work toward the improvement of the personal and academic situation of students. Additionally, home visits would have to create a closer relationship between the school (program) and the community. This may have a positive effect on the parental involvement component of the program.

Career Education and other. Students receive career information and other types of supportive services, such as shared instruction, through tax levy supported programs. Approximately 25 students received these services on a voluntary basis.

Staff Development

Nine of the twelve teachers in the program are presently enrolled in

graduate programs in Bilingual Edcation. Three paraprofessional teacher assistants are enrolled in degree-oriented programs. They all attend public and independent colleges in the New York City area in order to enhance their professional skills. They were also offered workshops on bilingual education methodolgy and students' self concept by an outside consultant and the guidance counselor.

The staff meets monthly to discuss matters related to school and program policies and problems of implementation; and the Project Director attends the Title VII Management Institute annually.

Interviews with teachers and staff indicate a need for a more systematically planned and implemented staff development component. In-service sessions offered during the 1979-80 period may not have focused sufficiently on identified teacher needs and they may not have been offered with the necessary frequency.

Parental and Community Involvement

The program has an advisory committee of 21 persons: 14 parents and 7 staff members. The Committee functions to review program and school policies, to disseminate program information, to discuss student programming, and to act in an advisory capacity.

The committee was formed by an invitation to all parents and staff to participate. It meets bimonthly, but attendance is extremely poor.

This lack of participation persisted throughout the year despite attempts to reach parents through letters sent home with students, mail, telephone calls and signs posted in stores and churches.

Although the program director feels that this component is one of the least successful, it is able to assist parents in complicated bureaucratic procedures required by the school, and provides them with information regarding requirements for students.

Some of the factors cited as negatively affecting parental participation are:

1) diminished control over adolescents in high school;

2) students failure to transmit notices to parents;

3) inability to communicate with parents either by telephone (do not have or are frequently disconnected) or letter (25% of the letters sent are returned by post office); and

4) general apathy.

The program offers activities to which parents are invited such as Program for Pan American Day: Open School Week; Black History week; and Program for Puerto Rico Discovery Day. Students participate in these activities, but parents do not. Students suggested that their parents might be more favorably disposed to visiting the program if they felt that the purpose of the visit was not to be informed of "problems" and if they could communicate with teachers in their own language.

Findings

The following section presents the assessment instruments and procedures, and the results of the testing.

Assessment Procedures and Instruments

Students were assessed in English language development, growth in their mastery of their native language, mathematics, social studies and science. The following are the areas assessed and the instruments used:

English as a Second Language	--	Criterion Referenced English Syntax Test (CREST)
Reading in Spanish	--	Inter-American Series: Prueba de Lectura
Mathematics Achievement	--	Shaw-Hiehle Mathematics Examination
Mathematics Performance	--	Teacher-Made Tests
Science Performance	--	Teacher-Made Tests
Social Studies Performance	--	Teacher-Made Tests
Native Language Arts Performance	--	Teacher-Made Tests
Spanis Language Performance	--	Teacher-Made Tests
Attendance	--	School and Program records

The following analyses were performed:

A) On pre/post standardized tests of Spanish, Native Language Mathematics Performance statistical and educational significance are reported:

1) Statistical Significance was determined through the application of the correlated t-test model. This statistical analysis demonstrates whether the difference between pre-test and post-test mean scores is larger than would be expected by chance variation

alone; i.e. is statistically significant. This analysis does not represent an estimate of how students would have performed in the absence of the program. No such estimate could be made because of the inapplicability of test norms for this population, and the unavailability of an appropriate comparison group.

2) Educational Significance was determined for each grade level by calculating an "effect size" based on observed summary statistics using the procedure recommended by Cohen.[1] An effect size for the correlated t-test model is an estimate of the difference between pre-test and post-test means expressed in standard deviation units freed of the influence of sample size. It became desirable to establish such an estimate because substantial differences that do exist frequently fail to reach statistical significance if the number of observations for each unit of statistical analysis is small. Similarly, statistically significant differences often are not educationally meaningful. Thus, statistical and educational significance permit a more meaningful appraisal of project outcomes. As a rule of thumb, the following effect size indices are recommended by Cohen as guides to interpreting educational significance (ES):

a difference of 1/5 = .20 = small ES

a difference of 1/2 = .50 = medium ES

a difference of 4/5 = .80 = large ES

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[1] Jacob Cohen. Statistical Power Analysis for the Behavioral Sciences (Revised Edition). New York: Academic Press, 1977 Chapter 2.

B) On the Criterion Referenced English Syntax Test (CREST) information is provided on the number of objectives mastered, and the number of objectives mastered per month of treatment. Information is also provided on student performance on the various test levels. Mastery rates are reported by semester for two units of instrucstion times: by day and by month. Instrucion (treatment) time is defined as the period of classroom instruction that occurred between pre- and post-testing which is conducted each semester. The maximum treatment time, as defined, is 63 days or 3.2 months (assuming that 20 days comprise one month, on the average). The data are reported on two subgroups of the Spanish speaking population in terms of the time of residence in mainland U.S.A.: students who have lived four or fewer years, and those who have lived more than four years in mainland U.S.A.

C) The results of the criterion referenced tests in mathematics, social studies, science and native language arts and language performance are reported in terms of the number and percent of students achieving the criterion levels set for the participants.

D) Information is provided on the attendance rate of students participating in the bilingual program, compared with that of the total school population.

The following pages present student achievement in tabular form.

TABLE VII

English as a Second Language

Fall

(Students in USA Four or Fewer Years)

Results of the Criterion Referenced English Syntax Test (CREST)
Reporting the Number of Objectives Mastered, Percent Mastered,
and Objectives Mastered Per Day and Per Month.

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Days of Treatment*	Average Months of Treatment*	Objectives Mastered Per Day	Objectives Mastered Per Month
9	31	5.5	3.8	69%	49.5	2.5	.08	1.6
10	18	5.8	3.3	57%	46.4	2.3	.07	1.4
11	2	10.0	6.5	65%	42.5	2.1	.15	3.1
12	---------- NO DATA ----------							
Totals	51	5.8	3.7	64%	48.1	2.4	.08	1.6

*Instructional time between pre- and post-testing.

Table VII reports Fall CREST results regardless of test level for students who have resided in the U.S.A. for four or fewer years. The combined sample mastered 3.7 of 5.8 attempted objectives on the average which equals a mastery rate of 64%. Given an average treatment time of 2.4 months between pre- and post-testing, the total group of students mastered an average of 1.6 objectives for every month of instruction. Within grades, the objectives mastered per month ranged from 1.4 (grade 10) to 3.1 (grade 11). Students demonstrated better than expected levels of English language growth.

TABLE VIII

English as a Second Language

Fall

(Students in USA Four or Fewer Years)

Student Performance on the
Criterion Referenced English Syntax Test (CREST)
A Breakdown by Test Level and Grade.

Grade	# of Students	LEVEL I			LEVEL II			LEVEL III		
		Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	31	92	70	76%	59	38	64%	18	10	56%
10	18	--	--		81	48	59%	23	11	48%
11	2	8	8	100%	12	5	42%	--	--	--
12	NO DATA									
Totals	51	100	78	78%	152	91	60%	41	21	51%

The Fall CREST grade and test level crosstabulation for students who have resided four or fewer years in the U.S.A. revealed that students in the lower grades functioned at the lower test levels, and upper grade students functioned primarily at upper test levels. The rate of objectives mastered by students throughout grade and test levels was consistently above 50%.

TABLE IX

English as a Second Language

Fall

(Students in USA for More Than Four Years)

Results of the Criterion Referenced English Syntax Test (CREST)
Reporting the Number of Objectives Mastered, Percent Mastered,
and Objectives Mastered Per Day and Per Month.

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Days of Treatment*	Average Months of Treatment*	Objectives Mastered Per Day	Objectives Mastered Per Month
9	27	8.1	3.0	37%	49.7	2.5	.06	1.2
10	21	7.2	3.9	54%	48.3	2.4	.08	1.6
11	9	7.0	3.7	52%	54.1	2.7	.07	1.4
12	---------- NO DATA ----------							
Totals	57	7.6	3.5	45%	49.9	2.5	.07	1.4

*Instructional time between pre- and post-testing.

Table IX reports Fall CREST results regardless of test level for students who have resided more than four years in the U.S.A. The combined group mastered on the average 3.5 of the 7.6 objectives attempted which translates into a 45% mastery rate. When the rate of growth is analyzed in terms of instruction time, the total sample mastered 1.4 objectives on the average for each month of instruction. Within grades, the rate of growth per month of instruction ranged from 1.2 (grade 9) to 1.6 (grade 10). Thus students mastered English language learning objectives beyond expectation.

TABLE X

English as a Second Language

Fall

(Students in USA for More Than Four Years)

Student Performance on the
Criterion Referenced English Syntax Test (CREST)
A Breakdown by Test Level and Grade.

Grade	# of Students	LEVEL I			LEVEL II			LEVEL III		
		Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	27	67	25	37%	149	56	38%	2	1	50%
10	21	73	49	67%	52	18	35%	26	15	58%
11	9	12	11	92%	35	15	43%	16	7	44%
12	---------- NO DATA ----------									
Totals	57	152	85	56%	236	89	38%	44	23	52%

The Fall CREST grade and test level crosstabulation for students who have resided in the U.S.A. more than four years revealed that the total group functioned basically at levels I and II. Within grade levels, substantial variation in mastery rates was evident. When this table is compared to the preceding one, it is clear that the rate of growth (when expressed in terms of time and regardless of test level) was high and somewhat uniform throughout grade levels, but within grade variation is substantial in the percent of objectives mastered.

TABLE XI

English as a Second Language

Spring

(Students in USA Four or Fewer Years)

Results of the Criterion Referenced English Syntax Test (CREST)
Reporting the Number of Objectives Mastered, Percent Mastered,
and Objectives Mastered Per Day and Per Month.

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Days of Treatment*	Average Months of Treatment*	Objectives Mastered Per Day	Objectives Mastered Per Month
9	34	4.3	2.4	55%	51.2	2.6	.05	1.1
10	11	3.6	1.8	50%	53.5	2.7	.03	0.7
11	3	5.7	1.3	23%	51.7	2.6	.03	0.5
12	---------- NO DATA ----------							
Totals	48	4.2	2.2	52%	51.8	2.6	.04	1.0

*Instructional time between pre- and post-testing.

Spring CREST results regardless of test level for students who have resided in the U.S.A. four or fewer years revealed that a lower mastery rate was evident in the Spring than in the Fall. This is most pronounced in grade 11 where significantly fewer objectives were mastered per month of treatment. The results are so descriptive as to suggest the possibility of major irregularities. Project personnel suggest two major factors which may explain the large observed differences between the two semesters. First, ESL instructors

TABLE XI
(continued)

in Spring were different from those in the Fall. The lack of instructional continuity caused by different instructors may have had a negative effect on student learning, thereby lowering student achievement. Second, it was believed that in the Spring teachers lacked appropriate background, experience and licensure in the instruction of limited English proficient students. These two factors are to be interpreted as plausible sufficient conditions explaining the dramatic decrement in student performance. Thus, a major flaw in the implementation of the Spring ESL instructional component is suggested to explain the large difference between Fall-Spring CREST results.

TABLE XII

English as a Second Language

Spring

(Students in USA Four or Fewer Years)

Student Performance on the
Criterion Referenced English Syntax Test (CREST)
A Breakdown by Test Level and Grade.

Grade	# of Students	LEVEL I			LEVEL II			LEVEL III		
		Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	34	103	48	47%	40	32	80%	3	0	0%
10	11	6	0	0%	15	9	60%	19	11	58%
11	3	10	0	0%	7	4	57%	--	--	
12	---------- NO DATA ----------									
Totals	48	119	48	40%	62	45	73%	22	11	50%

The Spring CREST crosstabulation of grade and test level results for students who have resided four or fewer years in the U.S.A. revealed striking differences in comparison to Fall results. While students in all grades made satifactory to excellent progress in English learning, the results for others suggest the possibility of major irregularities (see Table XI).

TABLE XIII

English as a Second Language

Spring

(Students in USA for More Than Four Years)

Results of the Criterion Referenced English Syntax Test (CREST)
Reporting the Number of Objectives Mastered, Percent Mastered,
and Objectives Mastered Per Day and Per Month.

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Days of Treatment*	Average Months of Treatment*	Objectives Mastered Per Day	Objectives Mastered Per Month
9	27	11.7	3.2	28%	51.2	2.6	.06	1.2
10	21	10.8	4.0	37%	58.7	2.9	.07	1.4
11	9	6.7	3.6	53%	59.1	3.0	.06	1.2
12	---------- NO DATA ----------							
Totals	57	10.7	3.5	33%	54.8	2.7	.06	1.2

*Instructional time between pre- and post-testing.

Spring CREST results regardless of test level for students who have resided in the U.S.A. for more than four years revealed that more objectives were attempted as compared to Fall results. A small decrement among 9th and 10th graders is evident for percent of objectives mastered. However, this appears to be basically a function of the higher number of objectives attempted in Spring. The rate of growth per month of instruction was very similar in each semester. Thus students continued to show growth in English language acquisition beyond expectation.

TABLE XIV

English as a Second Language

Spring

(Students in USA for More Than Four Years)

Student Performance on the
Criterion Referenced English Syntax Test (CREST)
A Breakdown by Test Level and Grade.

Grade	# of Students	LEVEL I			LEVEL II			LEVEL III		
		Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	27	145	43	30%	168	44	26%	3	0	0%
10	17	120	43	36%	39	14	36%	25	11	44%
11	7	2	0	0%	20	14	70%	25	11	44%
12	---------- NO DATA ----------									
Totals	51	267	86	32%	227	72	32%	53	22	42%

The Spring crosstabulation of grade and test level results for students who have resided in the U.S.A. for more than four years revealed that fewer objectives were mastered by students in comparison to Fall. This appears to be related to an increase in the number of objectives attempted in Spring.

TABLE XV

Spanish Language Achievement

Significance of Mean Total Raw Score Difference Between Initial and Final Scores for Spanish Speaking Students on the CIA Prueba de Lectura

Level II

Test Level	N	Pre-test Mean	Pre-test Standard Deviation	Post-test Mean	Post-test Standard Deviation	Mean Difference	Corr. Pre/post	t	P	ES
9	33	63.6	25.4	67.3	27.2	3.7	.89	1.70	.05	.30
10	24	73.8	19.5	79.5	23.8	5.7	.60	1.42	NS	.29
11	2	---------- INSUFFICIENT DATA ----------								

Spanish speaking students made a statistically significant gain in Spanish language performance in grade 9. The Educational Significance (ES) index in grade 9 is .30, indicating that the pre/post difference of 3.7 points was of small to moderate educational significance. In grade 10, the mean difference of 5.7 points failed to reach statistical significance. However, this gain was judged to be of small to moderate educational significance. No meaningful analyses were possible for 11th grade students, as the number of students reported was only two.

TABLE XVI

Native Language Mathematics Achievement

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores for Spanish Speaking Students on a Spanish Translation of the Shaw-Hiehle Mathematics Examination, Form B.

Grade	N	Pre-test Mean	Pre-test Standard Deviation	Post-test Mean	Post-test Standard Deviation	Mean Difference	Corr. Pre/post	t	P	ES
9	23	16.0	6.6	21.4	9.3	5.3	.61	3.39	.0025	.71
10	7	24.1	5.5	30.9	5.6	6.7	.74	4.45	.0025	1.68
11	2	---------- INSUFFICIENT DATA ----------								

Students in grades 9 and 10 made statistically significant gains in Native Language Mathematics. The pre-test/post-test gains were large when expressed in standard deviation units. The gains for grades 9 and 10 were five and six points respectively. No meaningful statistical analysis was possible for 11th grade students due to inadequate sample size.

TABLE XVII

Mathematics Achievement

Number and Percent of Students Passing
Teacher-Made Examinations in Mathematics

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	77	37	48%	79	38	48%
10	55	27	59%	51	29	57%
11	15	9	60%	16	11	69%

The percentage of students passing examinations in the Fall ranged from 48% in grade 9 to 60% in grade 11. In Spring the percentages passing generally increased with the exception of grade 9 students. Spring passing rates were 57% in grade 10 and 69% in Grade 11.

TABLE XVIII

Science Achievement

Number and Percent of Students Passing
Teacher-made Examinations in Science

Grade	FALL 1979 N	Number Passing	Percent Passing	SPRING 1980 N	Number Passing	Percent Passing
9	94	55	59%	67	47	70%
10	47	34	72%	39	30	77%
11	15	12	80%	12	11	92%

The percentage of students passing science in the Fall ranged from a low of 59% in grade 9 to a high of 80% in grade 11. In Spring, all grades improved in the percent passing. The percent showing mastery ranged from 70% in grade 9 to a high of 92% in grade 11.

TABLE XIX

Social Studies Achievement

Number and Percent of Students Passing
Teacher-made Examinations in Social Studies

Grade	FALL 1979 N	Number Passing	Percent Passing	SPRING 1980 N	Number Passing	Percent Passing
9	41	21	51%	46	26	57%
10	46	27	59%	37	22	59%
11	11	7	64%	12	10	83%

The percentage of students mastering the social studies curriculum in Fall ranged from a low of 51% in grade 9 to 64% in grade 11. In Spring, the percent passing ranged from 57% in grade 9 to a high of 83% in grade 11.

TABLE XX

Native Language Arts Achievement

Number and Percent of Students Passing
Teacher-made Examinations in Spanish Language

Grade	FALL 1979 N	FALL 1979 Number Passing	FALL 1979 Percent Passing	SPRING 1980 N	SPRING 1980 Number Passing	SPRING 1980 Percent Passing
9	66	34	52%	58	26	45%
10	38	16	55%	32	20	63%
11	8	6	75%	8	6	75%

In Fall, the percent of students mastering the Spanish Language Arts curriculum ranged from a low of 52% in grade 9 to a high of 75% in grade 11. In Spring, the pass rate ranged from 45% in grade 9 to 75% in grade 11.

TABLE XXI

Spanish Language Achievement

Number and Percent of Students Passing Teacher-made Examinations in Spanish Language Arts in Mainstream Classes

Grade	FALL 1979 N	Number Passing	Percent Passing	SPRING 1980 N	Number Passing	Percent Passing
9	18	12	67%	18	10	56%
10	23	17	74%	13	7	54%
11	5	2	40%	2	1	50%

Of those students taking Spanish in mainstream classes in the Fall, the percent mastering the curriculum ranged from 40% in grade 11 to 74% in grade 10. In Spring, the percent passing ranged from 50% in grade 11 to 56% in grade 9.

TABLE XXII

Attendance Rates

Number and Percent of Bilingual Program Students with Average Attendance Rates Greater Than the Average School Attendance

Grade	No. of Students	Average Attendance	Standard Deviation	Surpassing Rates	% Exceeding School Rates
9	102	76.1	22.3	81	79%
10	100	66.2	34.6	65	65%
11	35	70.5	38.8	27	77%

The average attendance rates ranged form 71% in Grade 11 to 76% in grade 9. The percentage of students exceeding the average school-wide attendance rate ranged from 65% in grade 10 to 79% in grade 9.

CONCLUSIONS

The ETBBS Program at Thomas Jefferson High School was visited by the evaluator three times during the 1980-81 academic year. Interviews were conducted with the school principal and assistant principal, as well as with the program's project director, curriculum developer, teachers, para-professional assistants, secretary, and students. Three classroom observations of courses taught in either English or Spanish were made and relevant records were reviewed. The project director provided information requested through an instrument developed by O.E.E. Student achievement was measured by testing with standardized and teacher-made instruments. Attendance rates were determined by analysis of school and program records.

The program served 225 Spanish speaking students of limited English proficiency. This student population, however, is extremely heterogeneous linguistically and academically. Approximately one half of the population was born and/or raised in New York City, while the other half has lived in the United States four years or less. All students are performing at levels below that expected for their age and grade. Program capacity to address this need is limited by the population's high mobility rate.

The program has identified as its major goal the development of English language skills and the transition of students to the English monolingual program at the earliest possible time. The goal is achieved through the implementation of a program adapted bilingual curriculum in which fundamental academic courses are taught in Spanish. English is taught as a second language at three levels for two distinct groups, New York born and/or raised and recently arrived. Additionally, students are offered transitional or remedial English classes and participate in mainstream classes offered

in English. The outstanding curricular need identified by the faculty was that of special education for some students in the program.

The program provided instructional and non-instructional services to students, staff, and community. As noted in the report, each of the components is in need of improvement, including guidance services, staff development, and parental/community involvement.

The major problem cited by the project director was that of communicating with and involving parents. The major strength of the program cited by teachers was the organizational structure as a separate, although integrated, unit of the school. Such an organizational arrangement facilitates communication and enhances identification with the program.

RECOMMENDATIONS

The following recommendations are offered for the purpose of program improvement. They are based on interviews and observations made during site visits, and on student outcomes.

1. The program serves a widely diverse population in terms of linguistic competence (in both English and Spanish) and academic preparedness. In some instances, individuals may be in need of special education placement. It is recommended that an assessment system be implemented which will diagnose students in the four areas of language (understanding, speaking, reading writing) in both English and Spanish, and that such information be used for the placement of students in appropriate groupings for instruction. A solely limited English proficiency designation appears to obfuscate the diversity of need. Furthermore, the identification and placement of LEP students requiring special education services needs to be improved.

2. The school provides alternative programs, such as College Discovery, which provide services which may be of value to bilingual program students. It would appear to be desirable to improve communication and cooperation between the bilingual program and the alternative programs, either by providing aspects of those programs within the bilingual program or developing "bilingual" capacity within the other programs. Such articulation may eliminate the "premature" transition of program students, reduce the isolation of remaining students and increase their integration with the general school population.

3. The need for improved counseling services is one which was voiced by virtually every individual interviewed. This need is particulary pressing in view of the complex school-community context and great diversity of student

needs. Counseling services would be improved through the implementation of a systematic means of identifying and monitoring students' needs for guidance services and by improving the guidance department's ability to communicate with students and parents in Spanish.

4. Staffing and staff training are areas in need of further development. Students may well benefit through the increase of staff members who share their ethnic heritage. These individuals may serve as role models, improve the incorporation of the "cultural referent" in content area classes, and facilitate improved communication between the school and the home. The need for improved staff development activities for teachers and paraprofessionals has also been identified. Reportedly, low teacher morale has resulted in decreased interest in staff development. A systematic needs assessment of teacher/paraprofessional training needs, one which incorporates issues affecting morale, may result in an improved and more relevant staff development program.

5. There is a need to increase parental involvement in the program through participation in the advisory committee, school and program functions, and their childrens' education. Few visits were made to the homes. It is recommended that an individual, such as a family assistant, preferably someone who knows and is part of the community, make home visits in order to establish personal communication. The use of personal means of communication might help to improve parental involvement directly and student achievement indirectly.